and wherein said reduction of apoptosis-induced eIF-5A or inhibition of activation of apoptosis-induced eIF-5A inhibits or delays apoptosis.

2. The method of claim 1, wherein said administering is performed *in vitro*.

3. The method of claim 1, wherein said administering is performed *in vivo*.

Cancel 4. The method of claim 1, wherein said agent inhibits transcription of an apoptosis-induced eIF-5A gene.

Cancel 5. The method of claim 1, wherein said agent inhibits translation of an apoptosis-induced eIF-5A gene transcript.

Cancel 6. The method of claim 1, wherein said agent inhibits activation of an apoptosis-induced eIF-5A protein.

Cancel 10. The method of claim 4, wherein said agent comprises a chemical or drug capable of inhibiting activation of an apoptosis-induced eIF-5A protein by apoptosis-induced DHS.

11. (Amended) The method of claim [10] 1, wherein said chemical or drug comprises spermidine, 1,3-Diamino-propane, 1,4-Diamino-butane (putrescine), 1,7-Diamino-heptane, or 1,8-Diamino-octane.

Cancel 19. A method for modulating apoptosis in a cell comprising the step of administering to said cell an agent that inhibits apoptosis-induced DHS function in said cell.

Cancel 20. The method of claim 19, wherein said administering is performed *in vitro*.

Cancel 21. The method of claim 19, wherein said administering is performed *in vivo*.

Cancel 22. The method of claim 19, wherein said agent inhibits transcription of an apoptosis-induced DHS gene.

Cancel 23. The method of claim 19, wherein said agent inhibits translation of an apoptosis-induced DHS gene transcript.

Cancel 31. The method of claim 30, wherein said agent inhibits transcription of an apoptosis-induced eIF-5A gene in said target cells of said mammal.

Cancel 32. The method of claim 30, wherein said agent inhibits translation of an apoptosis-induced eIF-5A gene transcript in said target cells of said mammal.

Cancel 33. The method of claim 30, wherein said agent inhibits activation of an apoptosis-induced eIF-5A protein in said target cells of said mammal.

Cancel 37. The method of claim 33, wherein said agent comprises a chemical or drug capable of inhibiting activation of an apoptosis-induced eIF-5A protein by an apoptosis-induced DHS protein in said target cells of said mammal.

Cancel 38. The method of claim 37, wherein said chemical or drug comprises spermidine, 1,3-Diamino-propane, 1,4-Diamino-butane (putrescine), 1,7-Diamino-heptane, or 1,8-Diamino-octane.

46. (Amended) The method of claim [30] 1, wherein said mammal is a human.

47. (Amended) The method of claim [30] 1, wherein said administration is by intraperitoneal injection.

Cancel 48. A method for modulating apoptosis in a mammal comprising the step of administering to said mammal an agent that inhibits apoptosis-induced DHS function in target cells of said mammal.

Cancel 49. The method of claim 48, wherein said agent inhibits transcription of an apoptosis-induced DHS gene.

Cancel 50. The method of claim 48, wherein said agent inhibits translation of an apoptosis-induced DHS gene transcript.

51. (New) A method for inhibiting or suppressing activation of apoptosis-induced eIF-5A comprising administering an agent that is capable of inhibiting DHS catalyzed chemical reactions, wherein the inhibiting apoptosis-induced DHS catalyzed chemical reactions inhibits or reduces an apoptosis cascade, said cascade comprising transferring a 4-aminobutyl residue from a spermidine to a ε-amino group of a conserved lysine on an inactive Factor 5A, said transferring converting the lysine to a deoxyhypusine, and wherein a deoxyhypusine hydroxylase converts the deoxyhypusine to hypusine, and wherein inhibition or reduction of said apoptosis cascade reduces an amount of activated apoptosis-induced eIF-5A or inhibits activation of apoptosis-induced eIF-5A.

REMARKS

Claims 4-6, 10, 19-23, 31-33, 37-38, 48-50 have been canceled. Claims 1, 11, 46, and 47 have been amended. Claim 51 has been added. No new matter has been added by these claim amendments or additions. Accordingly, claims 1, 11, 46-47 and 51 are pending in this case.